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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,483	04/15/2005	Martin Devenney	HNDA2014.2(HI02-0607-US02	2764
321 7590 09/21/2009 SENNIGER POWERS LLP 100 NORTH BROADWAY 17TH FLOOR ST LOUIS, MO 63102				
EXAMINER HODGE, ROBERT W				
ART UNIT		PAPER NUMBER		
1795				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@senniger.com

Office Action Summary

Application No.

10/506,483

Applicant(s)

DEVENNEY ET AL.

Examiner

ROBERT HODGE

Art Unit

1795

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 6-35 is/are pending in the application.
- 4a) Of the above claim(s) 7-13 and 15-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF-08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 6/19/09 have been fully considered but they are not persuasive. First and foremost, applicants' fully admit that the ranges in the prior art overlap the claimed ranges. Furthermore applicants state that the prior art does not have sufficient specificity to anticipate the claimed ranges. The breadth of the ranges as recited in the instant claims lack sufficient specificity according to applicants' own analysis. The broadest range for platinum covers 70% of the atomic percent spectrum, the broadest range for zinc covers 55% of the atomic percent spectrum and the broadest range for iron covers 60% of the atomic percent spectrum. In order for applicants to overcome a reference that has overlapping ranges applicants must show unexpected results over the entire claimed range, said showing has not been made. Further regarding sufficient specificity of the Prior art in MPEP 2131.03 (II), end points of a range are considered to offer sufficient specificity when comparing the prior art to the claimed invention. Therefore it is submitted that 7.58 atomic % Pt is about 10 atomic % PT since it is sufficiently close to "about 10" and 88.32 atomic % Pt is about 80 atomic % Pt since it is sufficiently close to "about 80", 17.76 atomic % Zn is about 15 atomic % Zn since it is sufficiently close to "about 15", and 76.06 and 88.75 atomic % Fe are about 80 atomic % Fe since they are sufficiently close to "about 80". Again the burden is shifted to applicants to show evidence of unexpected results within the entire claimed ranges. Applicants' remarks starting with the first full paragraph on page 15 of attorney remarks are not commensurate with the scope of the claims. Applicants state

that the method of the prior art is supposedly unsuccessful in preparing a Pt-Zn-Fe composition. However the instant claims are not method claims, they are in fact product claims and since applicants have fully admitted that a Pt-Zn-Fe composition is disclosed in the prior art (pages 9-12 of attorney remarks), the final product of the instant claims has been found in the prior art. Regarding claim 14 having more narrow ranges, again since the prior art overlaps the claimed ranges; the burden is shifted to applicants to provide evidence of unexpected results over the entire claimed ranges.

Claim Rejections - 35 USC § 102/103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 6 and 14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 52084193 hereinafter Ichikawa '193.

Through the provided official translation of Ichikawa '193 and attorney remarks dated 6/19/09, Ichikawa '193 teaches an alloy that is a catalyst that comprises 22-98% wt of PtO (which converts to 7.58-63.57 Atomic % Pt) or preferably 43-96% wt of PtO (which converts to 18.03-88.32 Atomic % Pt), 0.5-8% wt Zn (which converts to 0.54-

19.96 Atomic % Zn) or preferably 2.5-7% wt Zn (which converts to 3.25-17.76 Atomic % Zn) and 1.5-70% wt of Fe (which converts to 4.38-88.75 Atomic % Fe) or preferably 1.5-50% wt Fe (which converts to 4.45-76.06 Atomic % Fe), which meets the claim limitations of claims 1, 2, 6 and 14 (whole document and attorney remarks dated 6/19/09 pages 9-12). It is submitted that 7.58 atomic % Pt is about 10 atomic % Pt since it is sufficiently close to "about 10" and 88.32 atomic % Pt is about 80 atomic % Pt since it is sufficiently close to "about 80", 17.76 atomic % Zn is about 15 atomic % Zn since it is sufficiently close to "about 15", and 76.06 and 88.75 atomic % Fe are about 80 atomic % Fe since they are sufficiently close to "about 80". Regarding claim 14 having more narrow ranges, since the prior art overlaps the claimed ranges, the burden is shifted to applicants to provide evidence of unexpected results over the entire claimed ranges compared to the prior art. It is further noted that the recitation of "for use as a catalyst in oxidation or reduction reactions" in the preamble of claim 1 is not given patentable weight because said recitation is the intended use of the final product of the instant claims. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). It is submitted that the catalyst alloy of Ichikawa '193 is capable of being used in oxidation or reduction reactions due to the fact that the

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composition of the catalyst alloy of Ichikawa is the same as instantly claimed and therefore the burden is shifted to applicants to prove in the form of evidence otherwise.

The below tables are reproduced from the attorney remarks dated 6/19/09:

Ranges Based on Broadest Disclosure

Element	Low (Atomic %)	High (Atomic %)
Iron	4.38	86.75
Zinc	0.54	19.96
Platinum	7.58	93.57

Ranges Based on Preferred Disclosure

Element	Low (Atomic %)	High (Atomic %)
Iron	4.45	76.06
Zinc	3.25	17.76
Platinum	16.03	88.32

In the alternative a skilled artisan would recognize that the overlapping ranges of the prior art will yield the same catalytic properties as the instantly claimed catalyst and the burden is shifted to applicants to prove in the form of evidence otherwise.

Claims 1, 2, 6 and 14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 4,100,180 hereinafter Ichikawa '180.

Ichikawa '180 and attorney remarks dated 6/19/09 show that Ichikawa '180 teaches an alloy that is a catalyst that comprises 22-98% wt of PtO (which converts to 7.58-63.57 Atomic % Pt) or preferably 43-96% wt of PtO (which converts to 18.03-88.32 Atomic % Pt), 0.5-8% wt Zn (which converts to 0.54-19.96 Atomic % Zn) or preferably 2.5-7% wt Zn (which converts to 3.25-17.76 Atomic % Zn) and 1.5-70% wt of Fe (which

converts to 4.38-88.75 Atomic % Fe) or preferably 1.5-50% wt Fe (which converts to 4.45-76.06 Atomic % Fe), which meets the claim limitations of claims 1, 2, 6 and 14 (column 3, lines 1-14 and attorney remarks dated 6/19/09 pages 9-12, see also reproduced tables above). It is submitted that 7.58 atomic % Pt is about 10 atomic % Pt since it is sufficiently close to "about 10" and 88.32 atomic % Pt is about 80 atomic % Pt since it is sufficiently close to "about 80", 17.76 atomic % Zn is about 15 atomic % Zn since it is sufficiently close to "about 15", and 76.06 and 88.75 atomic % Fe are about 80 atomic % Fe since they are sufficiently close to "about 80". Regarding claim 14 having more narrow ranges, since the prior art overlaps the claimed ranges, the burden is shifted to applicants to provide evidence of unexpected results over the entire claimed ranges compared to the prior art. It is submitted that the catalyst alloy of Ichikawa '180 is capable of being used in oxidation or reduction reactions due to the fact that the composition of the catalyst alloy of Ichikawa '180 is the same as instantly claimed and therefore the burden is shifted to applicants to prove in the form of evidence otherwise.

In the alternative a skilled artisan would recognize that the overlapping ranges of the prior art will yield the same catalytic properties as the instantly claimed catalyst and the burden is shifted to applicants to prove in the form of evidence otherwise.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **ROBERT HODGE** whose telephone number is (571)272-2097. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert Hodge/
Examiner, Art Unit 1795